contact or rub against the relevant disk surface. Because at least a portion of the air bearing surface of a slider is made of a burnishable material, continued contact between the air bearing surface of a slider and the rotating disk burnishes at least a portion of the air bearing surface of a slider, thereby reducing its height. In theory, this burnishing procedure continues until the thickness of the structure of the air bearing surface of a slider has been reduced to a point where the air bearing surface of a slider just begins to fly relative to the disk surface. This results in fly height that theoretically is as small as possible.

According to an embodiment of the present invention, a baseline measurement of resistance for a sensor of a disk drive may be obtained and compared with subsequent measurements of resistance to identify a detrimental change to the at least one sensor is processed. A resistance variation detector may therefore quantify the resistance of the MR head as a function of contact with the recording surface.

Fig. 4 depicts a slider 400 which may be used by a head of a storage system according to an embodiment of the present invention. The slider 400 includes a slider body 402. The slider body 402 includes: a leading edge 410 and a trailing edge 414.

The slider body 402 includes a lower surface 422, which at least generally projects toward a recording surface 480. Spacing between the slider 400 and the recording surface 480 is maintained during normal disk drive operations (e.g., reading/writing information from/to the recording surface 480) by including an air bearing surface or ABS system 426 on the low surface 422 of the slider body 402.

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